



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,540	09/24/2004	Kai-Kuang Ho	13365-US-PA	5539

31561	7590	05/07/2007
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE		
7 FLOOR-1, NO. 100		
ROOSEVELT ROAD, SECTION 2		
TAIPEI, 100		
TAIWAN		

EXAMINER	
NGUYEN, TRAM HOANG	

ART UNIT	PAPER NUMBER
2818	

NOTIFICATION DATE	DELIVERY MODE
05/07/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Office Action Summary	Application No.	Applicant(s)	
	10/711,540	HO ET AL.	
	Examiner	Art Unit	
	Tram H. Nguyen	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25,28-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25, 28 and 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Glenn et al. (US 6,177,705; hereinafter Glenn).

Regarding **claim 25**, Glenn discloses a chip with polymer thereon (figure 7), comprising at least a chip (reference numeral 100) having an active surface (reference numeral 101); and polymer (reference numeral 320), disposed at periphery of the active surface of the chip extending to sidewalls of the chip (see fig. 7); a plurality of wires (reference numeral 208) electrically connecting the chip (reference numeral 100) and a carrier (reference numeral 222) for carrying the chip, wherein an end of each wires portion of the wires (208) connected with the active surface of the chip (see fig. 7) is covered by the polymer and the other portion of the wires is exposed outside of the polymer (see fig. 6).

Regarding **claim 28**, Glenn discloses all the limitation of the claimed invention for the reasons are set forth above; in addition, the figure 7 also shows the polymer (reference numeral 320) further covers a portion of the carrier (200).

Art Unit: 2818

Regarding **claim 29**, Glenn discloses all the limitations of the claimed invention for the reasons are set forth above; furthermore, the figure 7 once again shows the carrier (reference numeral 222) comprises a circuit substrate (reference numeral 200).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 30-34 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Glenn.

Regarding **claim 30**, Glenn discloses all the limitations of the claimed invention for the reasons are set forth above; except for the polymer is shaped as a ring covering periphery of the active surface of the chip. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify shape of the encapsulating because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding **claim 31**, Glenn discloses all the limitations of the claimed invention for the reasons are set forth above; except for the polymer is shaped as trips covering two opposite edges of the active surface of the chip. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify shape of the encapsulating because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding **claim 32**, Glenn discloses all the limitations of the claimed invention for the reasons are set forth above; except for the polymer is shaped as a plurality of pieces covering four corners of the active surface of the chip. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify shape of the encapsulating because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Art Unit: 2818

Regarding **claims 33 and 34**, Glenn discloses all the limitations of the claimed invention for the reasons are set forth above; besides, Glenn teaches the polymer comprises epoxy resin (col. 1, lines 66-67). Although Glenn does not clearly show polymer comprises a stress buffer polymer, but polymer is inherently considered as stress buffer polymer because polymer comprising epoxy resin wherein the epoxy resin is a stress buffer material.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2818

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tram Hoang Nguyen whose telephone number is (571)272-5526. The examiner can normally be reached on Monday-Friday, 8:30 AM – 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Smith can be reached on (571)272-1907. The fax numbers for all communication(s) is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.

THN
Art Unit 2818
04/27/2007

Andy Nguyen

Andy Nguyen
Primary Examiner